

### ABSTRACT

A method of performing physiological gating in a medical procedure includes acquiring a sequence of images having at least a first image and a second image of a target region, determining a first composite image based on  
5 the first and second images, and gating a medical procedure based on the composite image. A method of performing a medical procedure includes providing a plurality of templates, each of the templates having an image and treatment data, acquiring an input image, registering the input image with one of the templates, and performing a medical procedure based on the treatment data  
10 of the one of the templates that is registered with the input image.